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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/812,847	03/30/2004	Tsuyoshi Kamada	1324.70222	3128

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EXAMINER	
SHAPIRO, LEONID	
ART UNIT	PAPER NUMBER
2629	
MAIL DATE	DELIVERY MODE
11/18/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/812,847	KAMADA ET AL.	
	Examiner	Art Unit	
	Leonid Shapiro	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 August 2008 and 21 July 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-82* is/are pending in the application.

4a) Of the above claim(s) *8-81* is/are withdrawn from consideration.

5)☒ Claim(s) *4 and 5* is/are allowed.

6)☒ Claim(s) *1-3,6-7,82* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. Claims 1-3,6,82 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim et al. (7,205,970) in view of Kimura (US 2002/0118153 A1).

As to claim 1 Kim teaches an image processing method (col. 1, lines 8-12), comprising the steps of:

combining a higher-luminance pixel to be driven at a higher luminance than luminance data of an image to be displayed and a lower-luminance pixel to be driven at lower luminance than the luminance data (figs. 7A-7B, items A-B, from col. 6, line 66 to col. 7, line 25); and

determining a luminance on the higher-luminance pixel and luminance on the lower-luminance pixel so that a luminance can be obtained substantially equal to a desired luminance based on the luminance data (col. 7, lines 36-41).

Kim et al. does not disclose an area ratio of the higher-luminance pixel and the lower-luminance pixel.

Kimura teaches an area ratio of the higher-luminance pixel and the lower-luminance pixel (paragraphs 0002,0017,0022).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate teachings of Kimura into Kim et al. system in order to implement a grayscale function (par. 0002 in the Kimura reference).

As to claim 2, Kim teaches the combination of the higher-luminance pixel and the lower-luminance pixel changes frame by frame (col. 7, lines 7-19).

As to claim 3, it generally considered to be within the ordinary skill in the art to adjust, vary, select or optimize the numerical parameters or values of any system absent of showing criticality of in a particular recited value. Thus, it would have been obvious to one of ordinary skill in the art at the time of invention to interchange value the area ratio. Such a limitation would have been considered as obvious variation on the matter of selected area ratio which fails patentably distinguish over the prior art of Bowman et al. and Yates et al. and Jones. In re Rose, 105 USPQ 237 (CCPA 1955).

As to claim 6, Kim teaches a liquid-crystal display device having a liquid crystal sealed between an array substrate and an opposite substrate that are oppositely arranged with a predetermined cell gap, the liquid-crystal display device characterized by having a drive circuit for realizing an image processing method (fig. 5, items 100,400, col. 23-31).

As to claim 6, Kim teaches an area of the lower-luminance pixel is equal to an area of the higher-luminance pixel since high and low luminance supplied on temporary basis (from col. 6, line 66 to col. 7, line 19).

2. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kim et al. and Kimura in view of Koma (7,133,101 B2).

Kim and Kimura do not disclose the liquid crystal has a negative dielectric anisotropy and is in a vertical alignment under no application of voltage.

Koma teaches the liquid crystal has a negative dielectric anisotropy and is in a vertical alignment under no application of voltage (col. 2, lines 24-35).

It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate Koma teachings into Kim et al. and Kimura system in order to achieve a wider viewing angle (col. 3, lines 1-6).

Allowable Subject Matter

3. Claims 4-5 are allowed.

Relative to claim 4 the major difference between the teaching of the prior art of record (Kim et al., Kimura ,Koma) and the instant invention is that determining a luminance on the higher-luminance pixel and luminance on the lower-luminance pixel and an ***existence ratio*** of the higher-luminance frame and the lower-luminance frame so that a luminance can be equal to desired luminance.

Claim 5 depends on claim 4.

Response to Arguments

2. Applicant's arguments filed 07/21/08 have been fully considered but they are not persuasive:

On page 25, last paragraph of Remark, Applicant's stated that the Examiner asserts Kimura teaches an area ratio of a higher-luminance pixel and a lower-luminance in paragraphs [0002, 0017, and 0022]. Applicants respectfully disagree. Paragraph [0002] of Kimura merely refers to employment of different grayscale systems. One of these methods is an area-ratio grayscale method for performing control of the display states of sub-pixels between an ON state and an OFF state. Paragraph [0017] of Kimura teaches that in an electro-optical device, the luminance of each of the electro-optical elements has two values including a lower luminance level and a higher luminance level. However, even Applicant's disagree they still admitted that Kimura teaches an area-ratio grayscale method for performing control of the display (par. 0002) and the luminance of each of the electro-optical elements has two values including a lower luminance level and a higher luminance level (par. 0017). Therefore, Kimura teaches an area-ratio grayscale method for performing control of the display and the luminance of each of the electro-optical elements has two values including a lower luminance level and a higher luminance level.

On page 26, 1st paragraph of Remark, Applicant's stated that none of these cited portions of Kimura discloses or suggests determining an area ratio of the higher-luminance pixel and the lower-luminance pixel so that a luminance can be obtained substantially equal to a desired luminance based on the luminance data, as recited in claim 1. But this limitation disclosed by Kim (col. 7, lines 14-19). In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on

combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Conclusion

3. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Telephone Inquire

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonid Shapiro whose telephone number is 571-272-7683. The examiner can normally be reached on 8 a.m. to 5 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Hjerpe can be reached on 571-272-7691. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/L. S./
Examiner, Art Unit 2629
11.12.08

/Richard Hjerpe/
Supervisory Patent Examiner, Art Unit 2629